



Eagle Hotel

Installation : LED

Project number : 22692

Customer : CEF Nelson

Processed by : John Estabrook

Date : 12.02.2025

All calculations unless stated have been based upon an open plan area without any obstructions above the working plane. With regards to CIBSE/ BSEN12464-1:2011 we have shown illuminance levels and ratios for your ultimate approval. UGR and luminance values are available for your approval if necessary. It may be necessary in some instances to check UGR values even if the luminance values are below the compliant threshold.

Emergency lighting has been designed in accordance with BS5266-1:2016 but is an indicative layout only - additional lighting may be required. All emergency lighting is to be checked and confirmed with a local building/fire control officer and ultimately approved by the owner of the building. Any emergency lighting calculations that have been completed have been based on 0.5 lux for open areas and 1 lux for escape routes (where details of escape routes have been given).

Please be aware of L2 requirements and check that conformity has been met where required. In addition, ensuring that fire tents are used where needed to conform to current building regulations is vital; please contact our sales office for a quotation.

All luminaires used are subject to approval/certification of client/end user.

Common design parameters (shown below) have been used in order to carry out all calculations.

If any part of this scheme or luminaire choice within this scheme is deemed not suitable for the application, please contact us for re-calculations to be carried out prior to an order being placed.

All calculations have been based upon rated lumen outputs and may vary with ambient on site temperatures.

Please ensure that this lighting scheme complies with all requirements, and if further details/calculations are required please contact us via the below details.

Final quantities are to be confirmed prior to an order/installation and we will not be held responsible for any errors or omissions.

Nominal Values Used:

Maintenance Factor - 0.8

Reflectance Values (Office Type Interior): 70\50\20

Reflectance Values (Warehouse Type Interior): 50\30\20

The following values are based on precise calculations performed on calibrated lamps and luminaires, and their configurations, whereby gradual, unavoidable deviations can occur in practice. All guarantee claims are excluded for the specified data.

This exclusion of liability applies irrespective of the legal grounds for both damages and consequential damages suffered by users and third parties.

John Estabrook - Lighting Design Manager - johne@tamlite.co.uk
Tamlite Lighting

Object : Eagle Hotel
Installation : LED
Project number : 22692
Date : 12.02.2025



1 Luminaire data

1.1 Tamlite Lighting, CITY RLB T4 (CTRB600T4NWG)

1.1.1 Data sheet

Manufacturer: Tamlite Lighting



CTRB600T4NWG Road lanterns CITY RLB T4
CITY RLB T4 - Road lantern - 61W - 4000K - Fixed output

Luminaire data

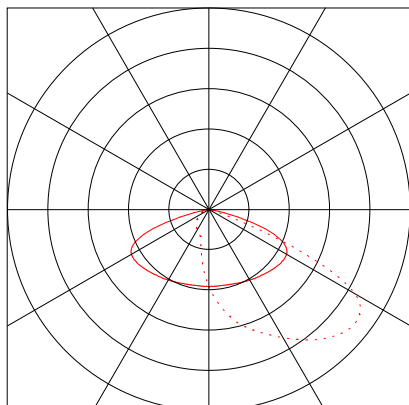
Absolute Photometry

Luminaire efficacy : 98.36 lm/W
Classification : A30 ↓100.0% ↑0.0%
CIE Flux Codes : 32 68 96 100 100
Glare : G*2 / D5
Control gear : LED Driver
Power : 61 W
Luminous flux : 6000 lm

Equipped with

Quantity : 1
Designation : LED
Colour :
Socket : N/A

Dimensions : 595 mm x 230 mm x 140 mm



Object : Eagle Hotel
Installation : LED
Project number : 22692
Date : 12.02.2025



1 Luminaire data

1.2 Tamlite Lighting, CITY RL T4 (CTRT4570NWG)

1.2.1 Data sheet

Manufacturer: Tamlite Lighting



CTRT4570NWG Road lanterns CITY RL T4
CITY RL T4 - Road lantern - Area optic - 40W - 4000K - Fixed output

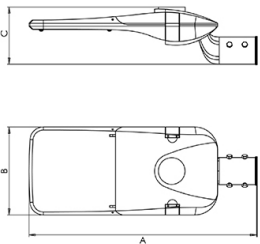
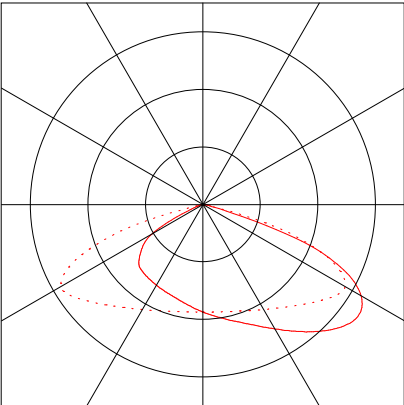
Luminaire data

Absolute Photometry
Luminaire efficacy : 142.5 lm/W
Classification : A30 ↓100.0% ↑0.0%
CIE Flux Codes : 32 70 97 100 100
UGR 4H 8H : 35.1 / 34.5
Control gear : LED Driver
Power : 40 W
Luminous flux : 5700 lm

Equipped with

Quantity : 1
Designation : LED
Colour :
Socket : N/A

Dimensions : 230 mm x 595 mm x 140 mm



Object : Eagle Hotel
Installation : LED
Project number : 22692
Date : 12.02.2025



1 Luminaire data

1.3 Tamlite Lighting, CITY WL (CWL90T2NWB)

1.3.1 Data sheet

Manufacturer: Tamlite Lighting



CWL90T2NWB Bulkhead - Exterior CITY WL

CITY WL - Exterior wall light - Road wide optic - 7W - 4000K - Fixed output

Luminaire data

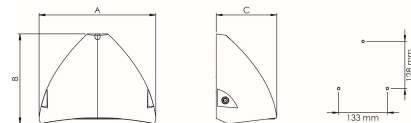
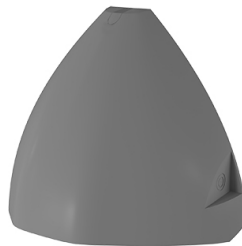
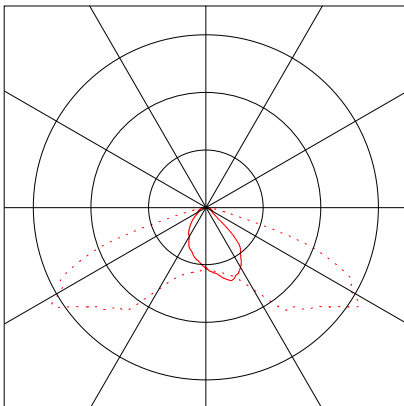
Absolute Photometry

Luminaire efficacy : 128.57 lm/W
Classification : A40 ↓99.4% ↑0.6%
CIE Flux Codes : 39 78 98 99 100
UGR 4H 8H : 17.2 / 28.0
Control gear : LED Driver
Power : 7 W
Luminous flux : 899.8 lm

Equipped with

Quantity : 1
Designation : LED
Colour :
Socket : N/A

Dimensions : 319 mm x 165 mm x 244 mm



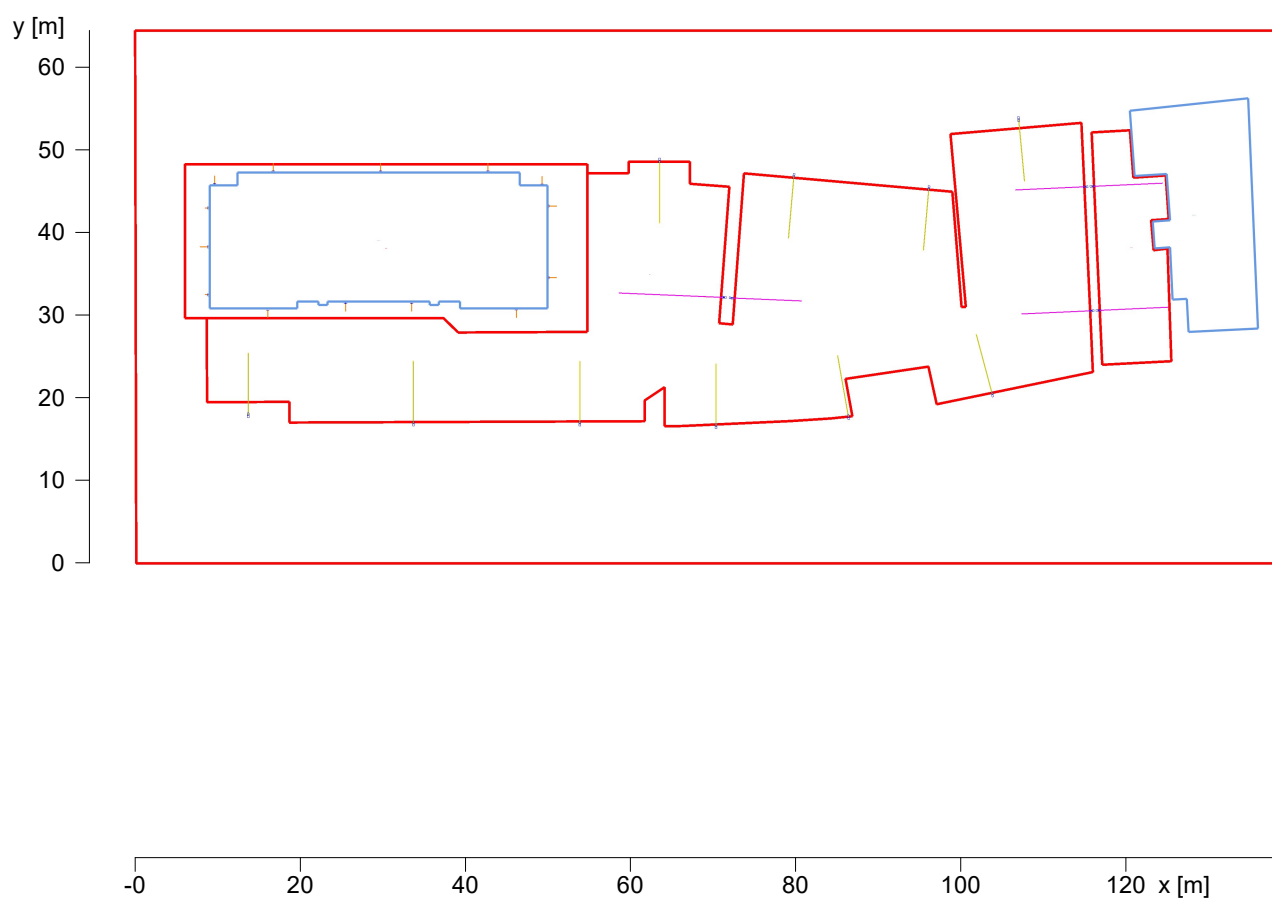
Object : Eagle Hotel
Installation : LED
Project number : 22692
Date : 12.02.2025



2 Room1

2.1 Description, Room1

2.1.1 Floor plan



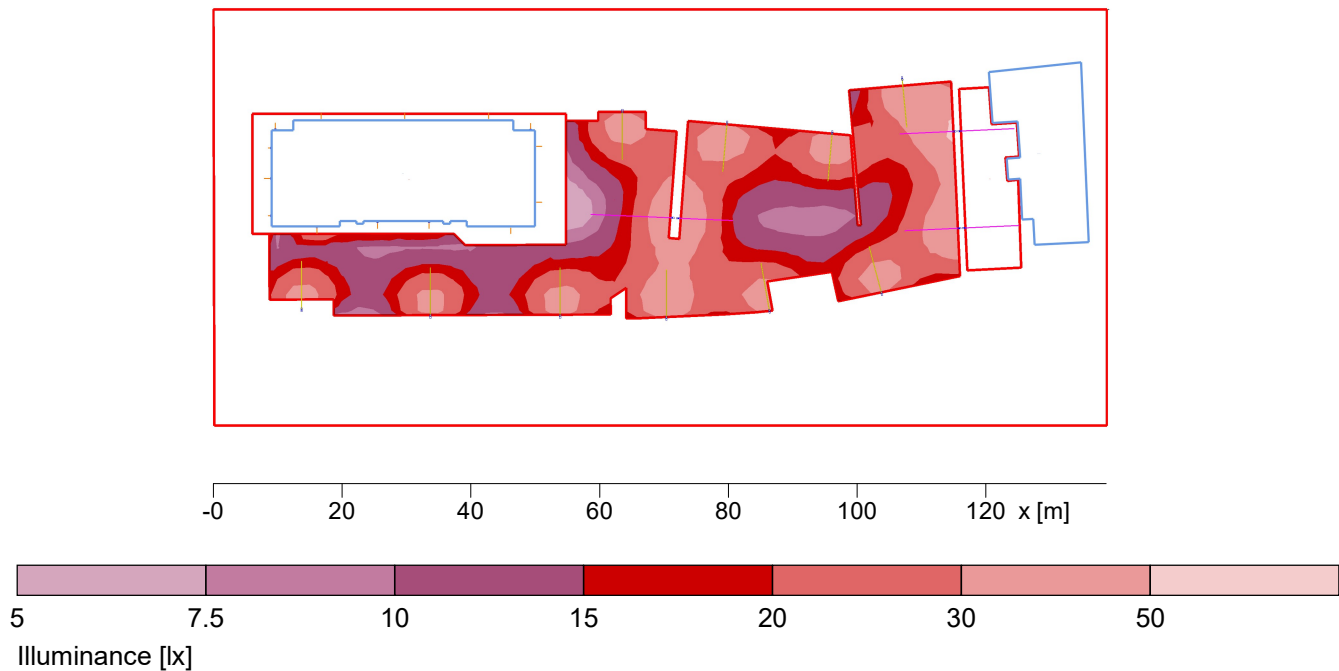
Object : Eagle Hotel
Installation : LED
Project number : 22692
Date : 12.02.2025



2 Room1

2.2 Summary, Room1

2.2.1 Result overview, Measuring area 1



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	106800 lm
Total power	948 W
Total power per area (8935.10 m²)	0.11 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	22.1 lx
Minimum illuminance	E_{min}	5.47 lx
Maximum illuminance	E_{max}	52.7 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:4.03 (0.25)
Diversity U_d	E_{min}/E_{max}	1:9.63 (0.1)

Type No.\Make

Tamlite Lighting

1	10 x	Order No.	: CTRB600T4NWG
		Luminaire name	: CITY RLB T4
		Equipment	: 1 x LED 61 W / 6000 lm
2	6 x	Order No.	: CTRT4570NWG
		Luminaire name	: CITY RL T4
		Equipment	: 1 x LED 40 W / 5700 lm

Object : Eagle Hotel
Installation : LED
Project number : 22692
Date : 12.02.2025



2 Room1

2.2 Summary, Room1

2.2.1 Result overview, Measuring area 1

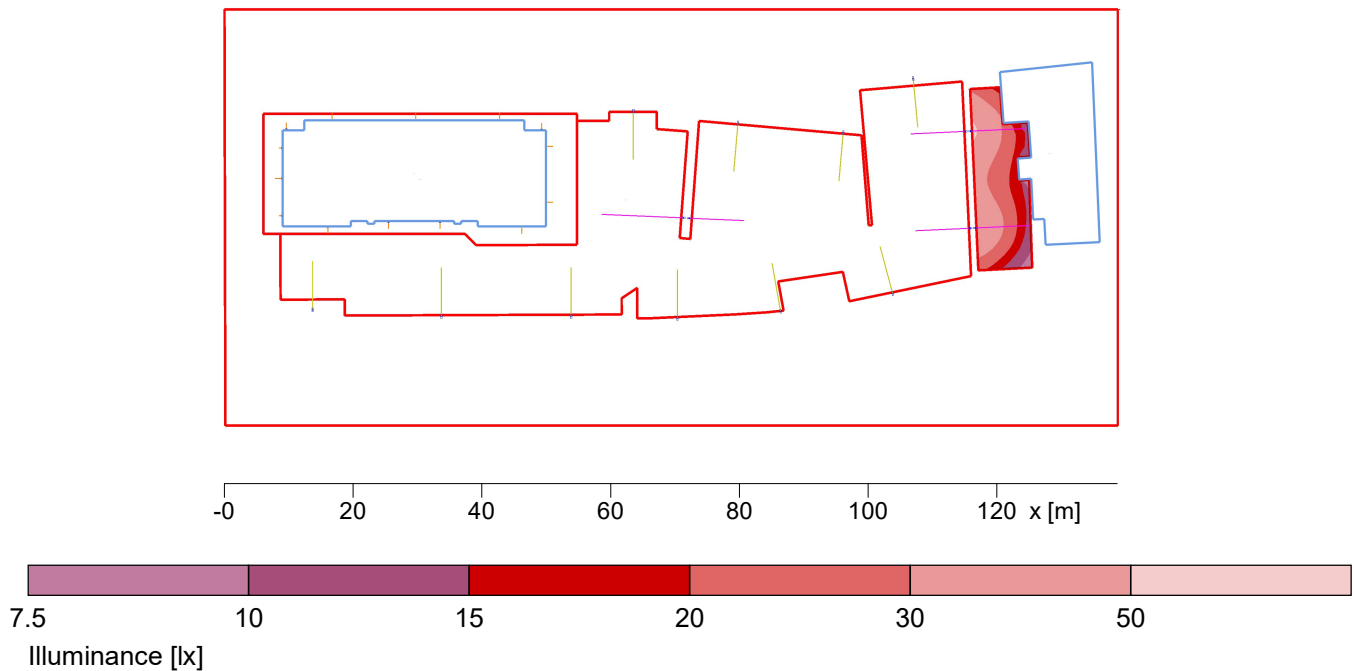
3	14 x	Order No.	: CWL90T2NWB
X2		Luminaire name	: CITY WL
		Equipment	: 1 x LED 7 W / 900 lm

Object : Eagle Hotel
Installation : LED
Project number : 22692
Date : 12.02.2025



2.2 Summary, Room1

2.2.2 Result overview, Measuring area 2



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	106800 lm
Total power	948 W
Total power per area (8935.10 m²)	0.11 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	27.3 lx
Minimum illuminance	E_{min}	7.78 lx
Maximum illuminance	E_{max}	52 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:3.51 (0.29)
Diversity U_d	E_{min}/E_{max}	1:6.69 (0.15)

Type No.\Make

Tamlite Lighting

1	10 x	Order No.	: CTRB600T4NWG
		Luminaire name	: CITY RLB T4
		Equipment	: 1 x LED 61 W / 6000 lm
2	6 x	Order No.	: CTRT4570NWG
		Luminaire name	: CITY RL T4
		Equipment	: 1 x LED 40 W / 5700 lm

Object : Eagle Hotel
Installation : LED
Project number : 22692
Date : 12.02.2025



2.2 Summary, Room1

2.2.2 Result overview, Measuring area 2

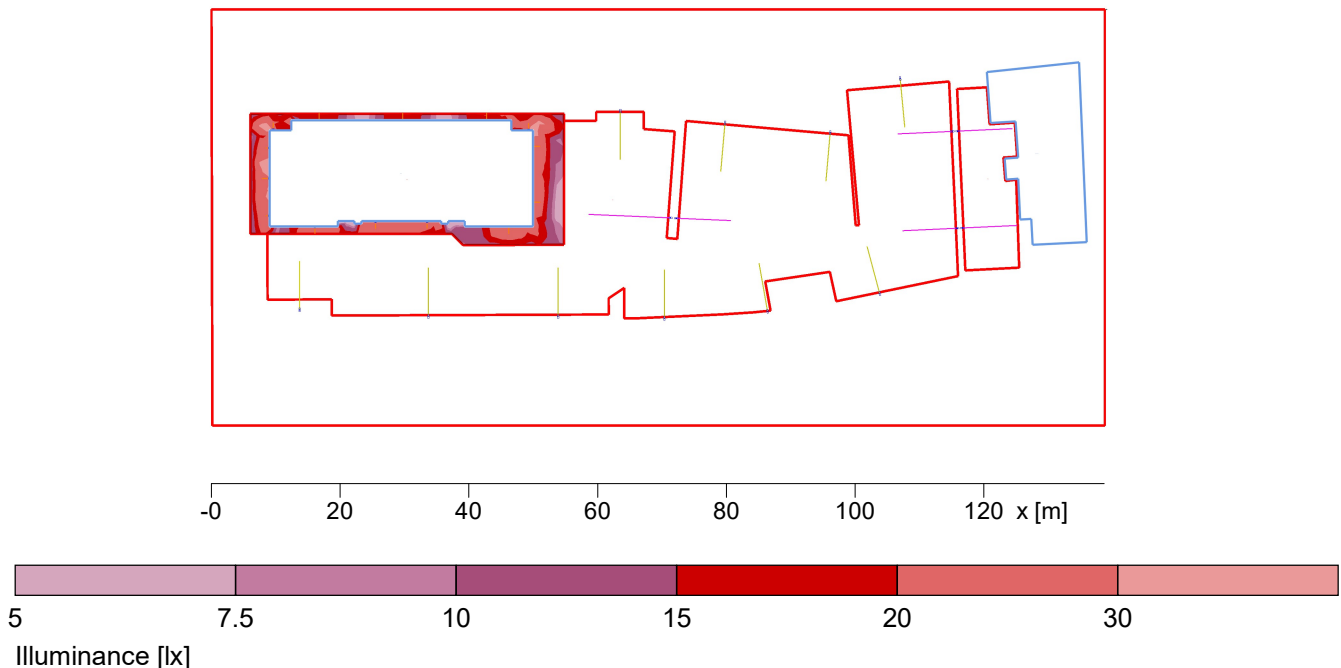
3	14 x	Order No.	: CWL90T2NWB
X2		Luminaire name	: CITY WL
		Equipment	: 1 x LED 7 W / 900 lm

Object : Eagle Hotel
 Installation : LED
 Project number : 22692
 Date : 12.02.2025



2.2 Summary, Room1

2.2.3 Result overview, Measuring area 3



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	106800 lm
Total power	948 W
Total power per area (8935.10 m²)	0.11 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	18 lx
Minimum illuminance	E_{min}	5.83 lx
Maximum illuminance	E_{max}	31.9 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:3.08 (0.32)
Diversity U_d	E_{min}/E_{max}	1:5.47 (0.18)

Type No.\Make

Tamlite Lighting

1	10 x	Order No.	: CTRB600T4NWG
		Luminaire name	: CITY RLB T4
		Equipment	: 1 x LED 61 W / 6000 lm
2	6 x	Order No.	: CTRT4570NWG
		Luminaire name	: CITY RL T4
		Equipment	: 1 x LED 40 W / 5700 lm

Object : Eagle Hotel
Installation : LED
Project number : 22692
Date : 12.02.2025



2.2 Summary, Room1

2.2.3 Result overview, Measuring area 3

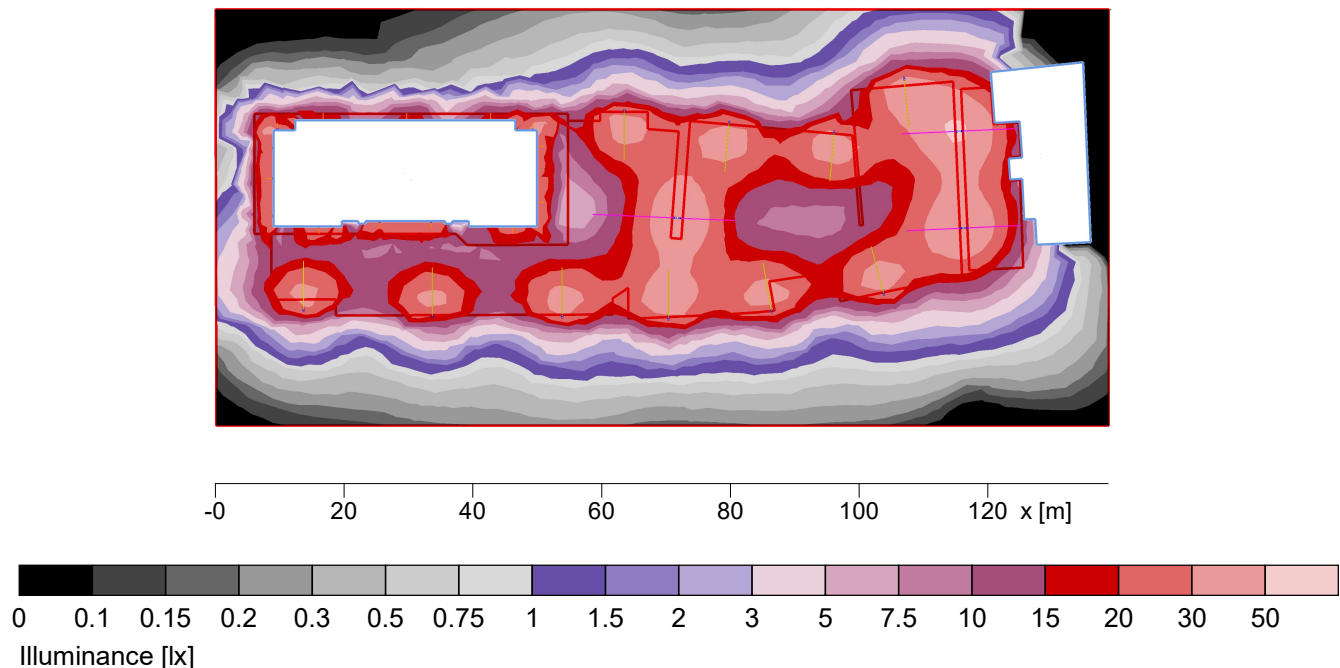
3	14 x	Order No.	: CWL90T2NWB
X2		Luminaire name	: CITY WL
		Equipment	: 1 x LED 7 W / 900 lm

Object : Eagle Hotel
 Installation : LED
 Project number : 22692
 Date : 12.02.2025



2.2 Summary, Room1

2.2.4 Result overview, Evaluation area 1



General

Calculation algorithm used
 Maintenance factor

Average indirect fraction
 0.80

Total lamp luminous flux
 Luminaire luminous flux
 Total power
 Total power per area (8935.10 m²)

106800 lm
 106797 lm
 948.0 W
 0.11 W/m² (1.08 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Horizontal
 $\bar{E}_m$ 9.83 lx
 E_{min} 0 lx
 $E_{min}/\bar{E}_m (U_o)$ ---
 $E_{min}/E_{max} (U_d)$ ---
 Position 0.00 m

Type No.\Make

Tamlite Lighting

- | | | | |
|---|------|----------------|--------------------------|
| 1 | 10 x | Order No. | : CTRB600T4NWG |
| | | Luminaire name | : CITY RLB T4 |
| | | Equipment | : 1 x LED 61 W / 6000 lm |
| 2 | 6 x | Order No. | : CTRT4570NWG |
| | | Luminaire name | : CITY RL T4 |
| | | Equipment | : 1 x LED 40 W / 5700 lm |

Object : Eagle Hotel
Installation : LED
Project number : 22692
Date : 12.02.2025



2.2 Summary, Room1

2.2.4 Result overview, Evaluation area 1

3	14 x	Order No.	: CWL90T2NWB
X2		Luminaire name	: CITY WL
		Equipment	: 1 x LED 7 W / 900 lm

Object : Eagle Hotel
Installation : LED
Project number : 22692
Date : 12.02.2025



2 Room1

2.3 Calculation results, Room1

2.3.1 Table, Reference plane 1.1 (E)

1.7	2	2.1	2	1.7	1.3	0.1	(0)	(0)	(0)
4.2	5.1	5.1	4.9	4.1	2	0.2	0.1	(0)	(0)
10.9	17.6	14.5	14	10.9	3.5	0.5			(0)
31.1	41.9	35.9	30.9	22.4					(0)
26.3	37.4	43	46.4	35.7					(0)
23	29.1	41.1	[51.6]	40.3	22.3				(0)
20	22.3	31.1	40.2	32.8	20.4				(0)
15	18.6	26.4	34.3	29.5	19				(0)
13.5	19.9	30.1	41.4	35.8	22				(0)
16.7	22.8	34.1	46.3	41.1	23.5	9.9			(0)
25.4	26.8	30.1	35.3	30	17.6	8.5	3	0.4	0.1
35.5	25.2	19.9	19.3	16.1	10	5.8	2.6	1	0.4
20.4	12.2	7.6	8	7.6	5.2	3.1	1.9	0.8	0.3
5.1	4.3	3.6	3.7	3.2	2.4	1.6	1.1	0.7	0.3
1.9	1.8	1.6	1.5	1.3	1.1	0.8	0.7	0.4	0.3
0.8	0.8	0.7	0.6	0.5	0.5	0.4	0.4	0.3	0.2
0.4	0.4	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.1
0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
120 [m]									



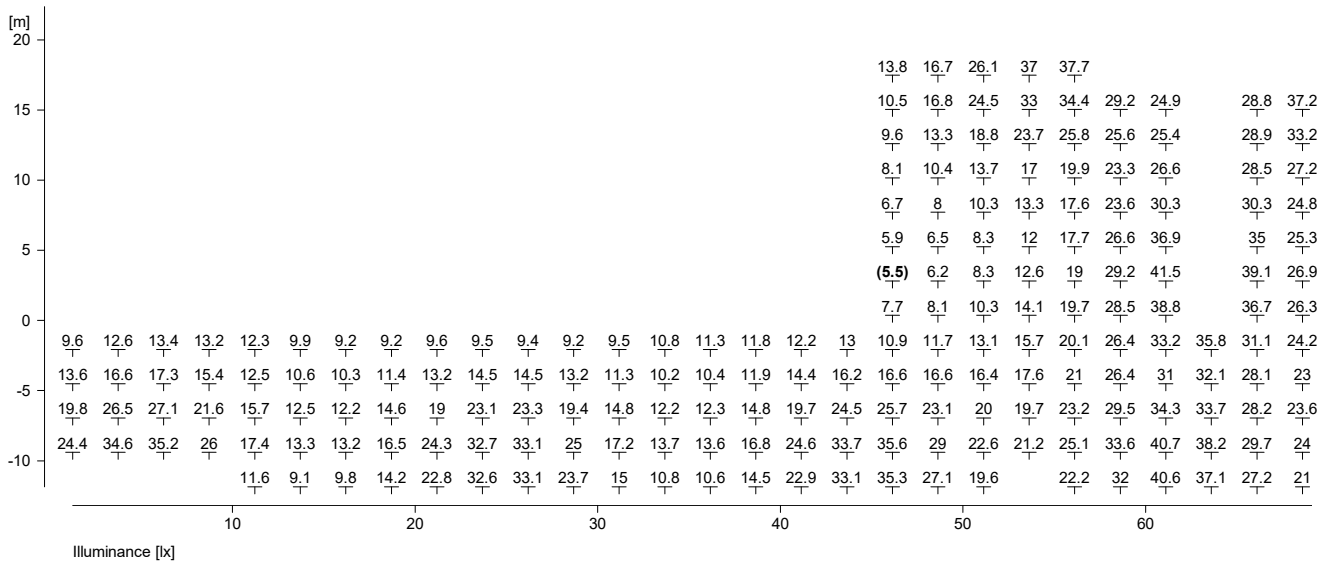
Part2

Object : Eagle Hotel
Installation : LED
Project number : 22692
Date : 12.02.2025



2.3 Calculation results, Room1

2.3.2 Table, Measuring area 1 (E)



Part1

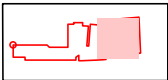
Height reference plane		: 0.00 m
Average illuminance	$\bar{E}_m$	: 22.1 lx
Minimum illuminance	E_{min}	: 5.5 lx
Maximum illuminance	E_{max}	: 52.7 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 4.03 (0.25)
Diversity U_d	E_{min}/E_{max}	: 1 : 9.63 (0.10)



2.3 Calculation results, Room1

2.3.2 Table, Measuring area 1 (E)

										21.9	35.3	44.4	41.4	34.7	
									15	22.1	32.7	40.9	42.3	41.3	41.1
								15.7	19.3	25.8	32.7	39.5	46.1	51.2	
41.5	34.5	24.3	19.2	20.2	27.3	35.9	35.8	27.9	22.8	23.2	27.4	35.3	45.1	52.7	
34.8	30.4	23.7	20.2	22.2	29.1	37.3	37.7	30.2	23.5	21.2	23.2	29.3	37.1	44	
25.8	23.2	19.5	17.6	18.8	22.9	26.9	27.2		18.9	17.4	19.3	23.7	30.3	36	
20.4	17.5	15.2	14	14.4	15.8	16.9	17.4		14.6	14.8	17.5	21.9	28.2	33.7	
17.7	13.8	11.8	10.8	10.7	11.1	10.9	11.4	11.6	12.1	14	18.1	23.7	30.9	37.8	
16.7	11.7	9.8	9.2	8.9	8.7	8.3	9	10	12.2	15.1	19.8	26.8	36.2	45.4	
17.2	12.5	10.3	10.1	9.5	9.2	9.2	10.2	12.2	14.8	17.9	22	28.5	37.9	47.5	
18.7	15.6	14.1	13.6	12.7	11.9	12.1	13.9	17.2	20.7	23.3	24.7	27.5	32.8	38.8	
20.6	20.3	20.6	20.2	17.7	15.3	15.1	17.9	24.1	30.2	31.7	27.9	25.1	25.3	27.1	
23	26.3	30.2	29.7				20.4	28.6	38.1	38.1	28.6	19.9	17.1		
24.6	30.5	38.4					17.8	24							
20.7	25.7	31.1													
70			80				90				100				[m]

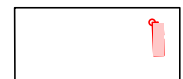
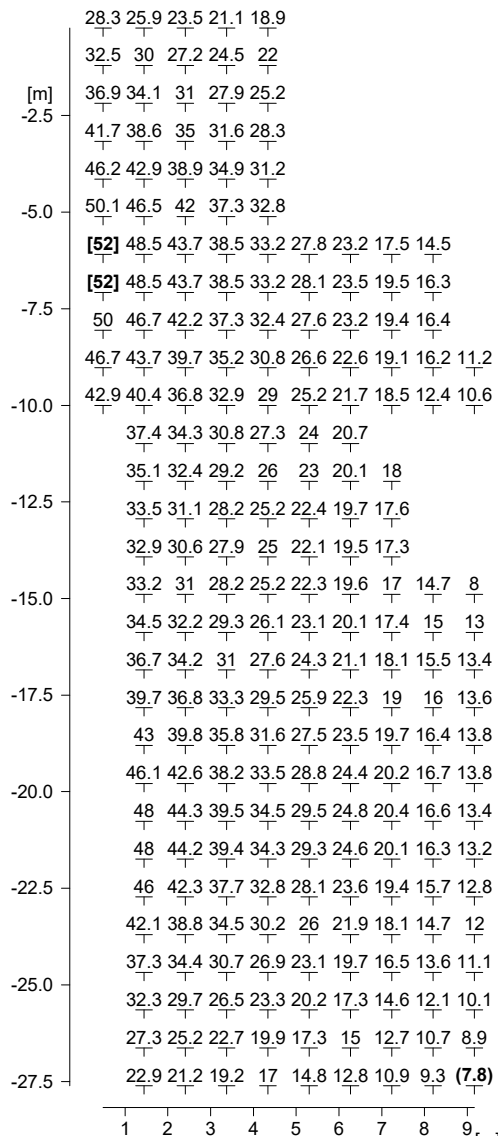


Object : Eagle Hotel
 Installation : LED
 Project number : 22692
 Date : 12.02.2025



2.3 Calculation results, Room1

2.3.3 Table, Measuring area 2 (E)

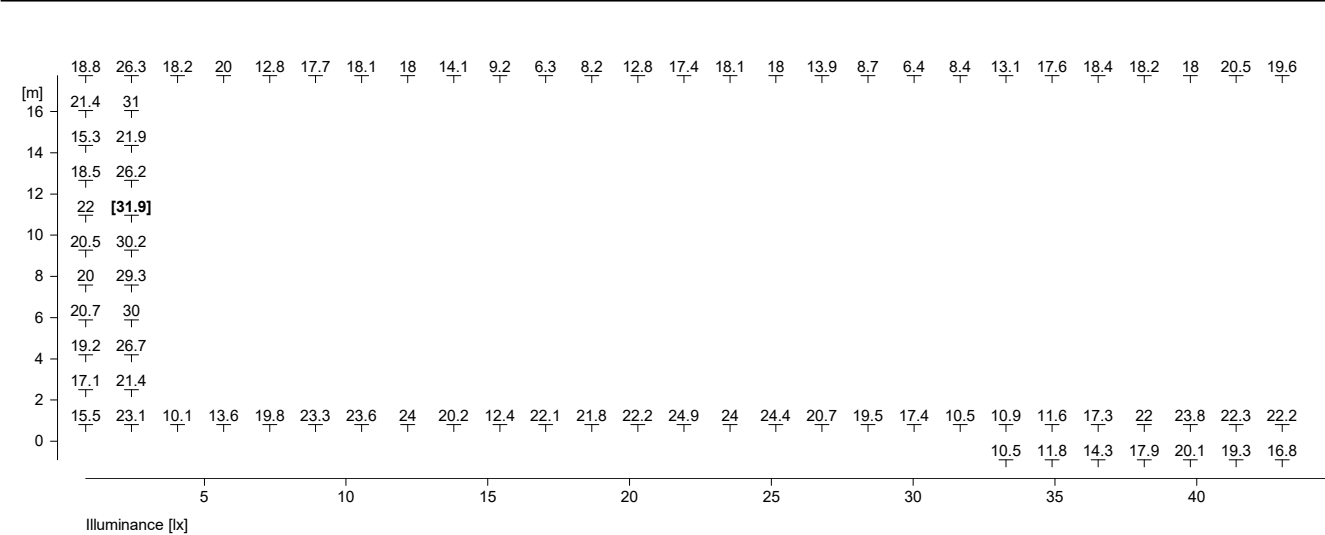


Height reference plane	: 0.00 m
Average illuminance	$\bar{E}_m$: 27.3 lx
Minimum illuminance	E_{min} : 7.8 lx
Maximum illuminance	E_{max} : 52 lx
Uniformity U_o	$E_{min}/\bar{E}_m$: 1 : 3.51 (0.29)
Diversity U_d	E_{min}/E_{max} : 1 : 6.69 (0.15)



2.3 Calculation results, Room1

2.3.4 Table, Measuring area 3 (E)



Part1

Height reference plane		: 0.00 m
Average illuminance	$\bar{E}_m$	: 18 lx
Minimum illuminance	E_{min}	: 5.8 lx
Maximum illuminance	E_{max}	: 31.9 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 3.08 (0.32)
Diversity U_d	E_{min}/E_{max}	: 1 : 5.47 (0.18)

Object : Eagle Hotel
Installation : LED
Project number : 22692
Date : 12.02.2025



2.3 Calculation results, Room1

2.3.4 Table, Measuring area 3 (E)

27.8	22	14.7
30.1	23.8	17.1
24.5	17	9.7
24.1	17.5	11.4
23.8	16.5	9.6
21.3	16.2	8.4
23	15.6	7.3
23.2	15	6.2
21.2	13.7	(5.8)
19.8	13.2	5.9
20.8	13.8	8.7
18.2	14.1	9.9
45		[m]

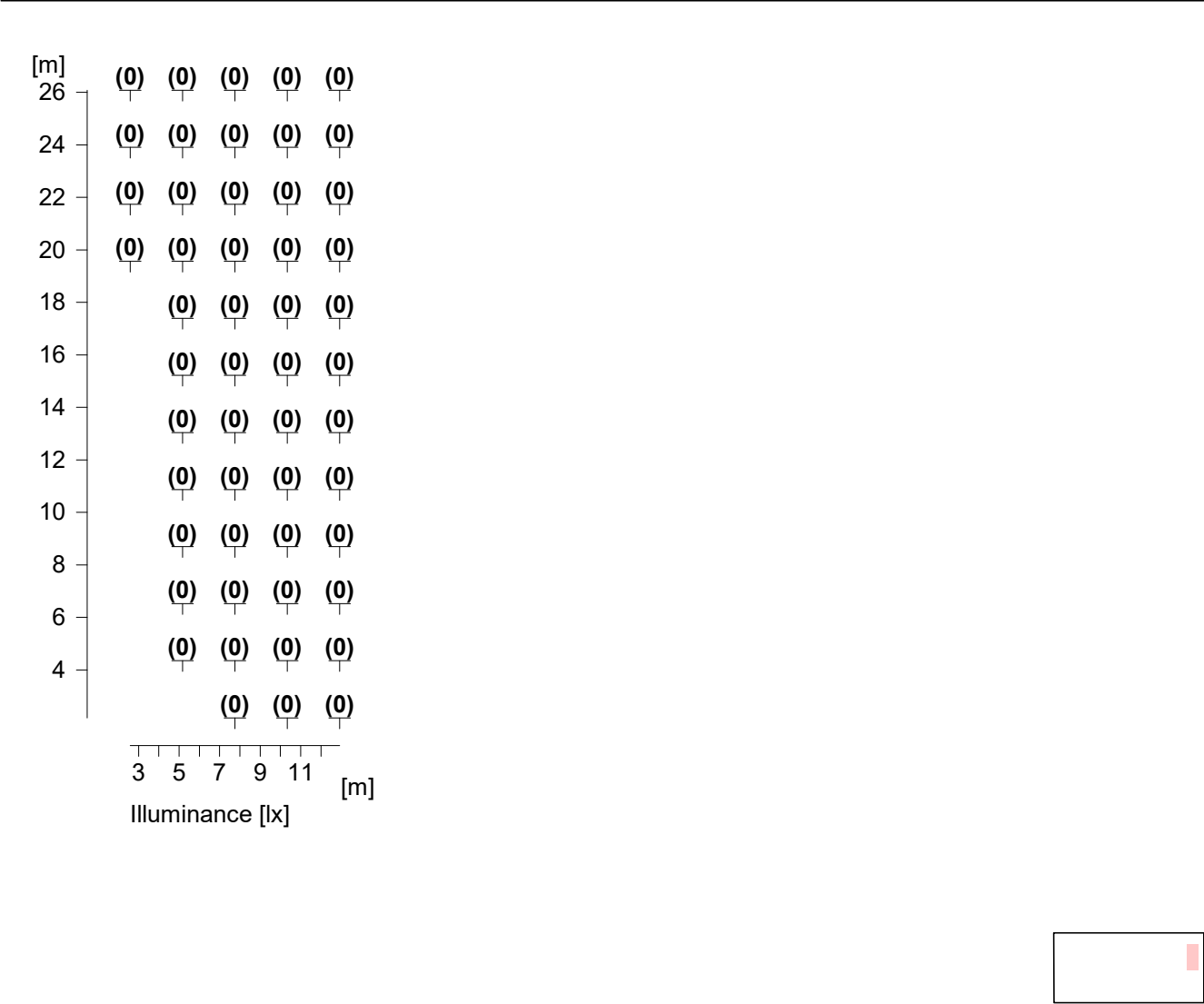


Part2



2.3 Calculation results, Room1

2.3.5 Table, Cube 4 (E)



Average illuminance	$\bar{E}_m$	: 0 lx
Minimum illuminance	E_{min}	: 0 lx
Maximum illuminance	E_{max}	: 0 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: ---
Diversity U_d	E_{min}/E_{max}	: ---